

Claims

1. A contrast agent comprising microbubble-generating carbohydrate microparticles having a surfactant admixed within the microparticulate structure, with the proviso that the surfactant is not a C₁₀₋₂₀ fatty acid.
2. A contrast agent as claimed in claim 1 in which the carbohydrate is a water-soluble pentose, hexose, disaccharide, polysaccharide or sugar alcohol.
3. A contrast agent as claimed in claim 2 in which the carbohydrate is galactose.
4. A contrast agent as claimed in any of the preceding claims in which the surfactant is selected from straight chain aliphatic carboxylic acids and salts, sorbitan esters and mono- and di-glycerides thereof; aralkanoic acids and salts thereof; steroid acids; sterols; straight chain aliphatic alcohols; phospholipids; alkali metal alkyl sulphates and sulphonated esters; polyoxyethylene-polyoxypropylene copolymers; polyoxyethylated sorbitan esters and mixtures of any of the foregoing.
5. A contrast agent as claimed in any of the preceding claims in which the surfactant comprises a lipophilically modified carbohydrate.
6. A contrast agent as claimed in any of claims 1 to 4 in which the surfactant comprises carbohydrate-containing liposomes.
7. A contrast agent as claimed in any of the preceding claims in which the surfactant is present in an amount of 0.1-2.0% w/w relative to the microparticulate

carbohydrate.

8. A contrast agent as claimed in any of the preceding claims in which the microparticles are aggregates having an aggregate size of 30-50 micrometres of microparticles having a particle size of 1-10 micrometres.

9. A process for preparing a contrast agent as claimed in claim 1 which comprises (i) either mixing solutions of the carbohydrate and surfactant and removing the solvent(s) therefrom or mixing a solution of the carbohydrate with a liposome-forming material and removing the solvent therefrom and (ii) micronising the resulting mixture to yield the desired microparticles.

10. A process as claimed in claim 9 in which the mixture is micronised by ball-milling.

11. Use of a contrast agent as claimed in any of claims 1 to 8 in diagnostic imaging.

12. Use of a contrast agent as claimed in any of claims 1 to 8 in diagnostic ultrasonic imaging.

13. Use of a contrast agent as claimed in any of claims 1 to 8 in magnetic resonance imaging.